Title: TEST EXECUTION FRAMEWORK FOR AUTOMATED SOFTWARE TESTING
Inventors: Francislav P. Penov et al.
Docket No.: 13768.410

1 / 8

100

	Location 120	Location 140	Location 160	
Variation	Portion 112	Portion 114	Portion 116	110
Variation	Portion 132	Portion 134	Portion 136	130
Variation	Portion 152	Portion 154	Portion 156	150
Variation	Portion 172	Portion 174	Portion 176	170
Variation	Portion 192	Portion 194	Portion 196	190

Fig. 1

Title: TEST EXECUTION FRAMEWORK FOR AUTOMATED SOFTWARE TESTING
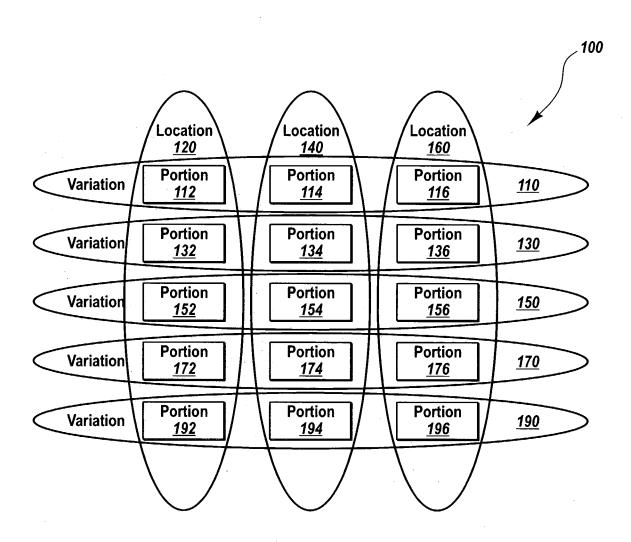Inventors: Francislav P. Penov et al.
Docket No.: 13768.410

2 / 8

Fig. 2A

Title: TEST EXECUTION FRAMEWORK FOR AUTOMATED SOFTWARE TESTING
Inventors: Francislav P. Penov et al.
Docket No.: 13768.410

3 / 8

Fig. 2B

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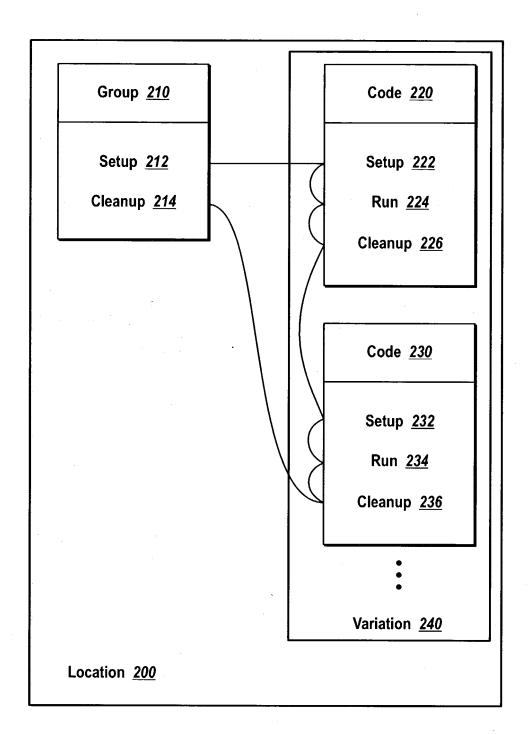Inventors: Francislav P. Penov et al.
Docket No.: 13768.410

4 / 8

300

Execution Engine *310*

| Test 1 *322* | Test 2 *324* | • • • | Test N *326* |

Test Code *320*

| Logger *331* | Expansion Algorithms *332* | Results *333* |

| Context *335* | Synchronization *336* | Comparators *337* |

| Location Information *338* | Other *339* | • • • |

Service Layer *330*

Fig. 3

Title: TEST EXECUTION FRAMEWORK FOR AUTOMATED SOFTWARE TESTING
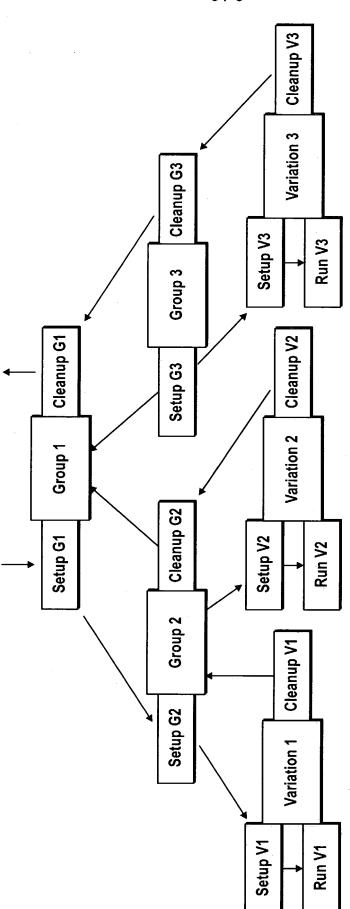Inventors: Francislav P. Penov et al.
Docket No.: 13768.410

5 / 8

Read Test File —402

Load and Parse Test File 404

Expand Variation Sections —406

Create Expanded Variation Sections 408

410

No —412 More Groups ?

414— Yes

Pass Synchronization Information to Group —416

Share Synchronization Information 418

Pass Context Information to Group —420

Share Context Information 422

Access Data in Parameter Section for Group —424

Call Optional Group Setup —426

Execute Optional Group Setup Instructions 428

Call Group Setup —430

Execute Group Setup Instructions 432

434

No 436— More Code ?

438— Yes

Fig. 4A

(A) (B) (C) (E) (F)
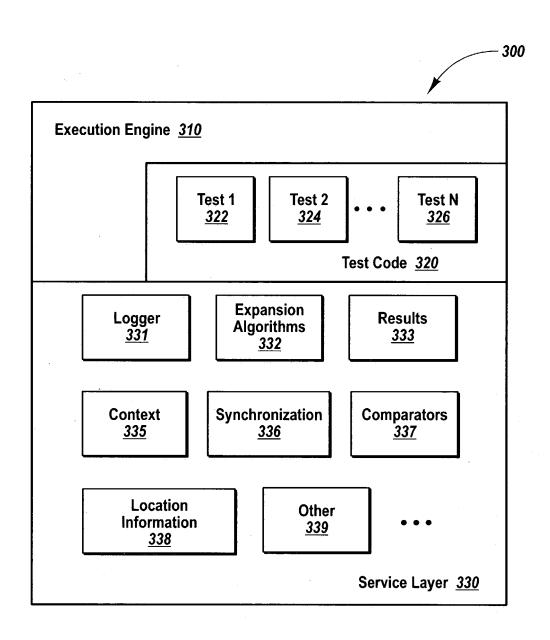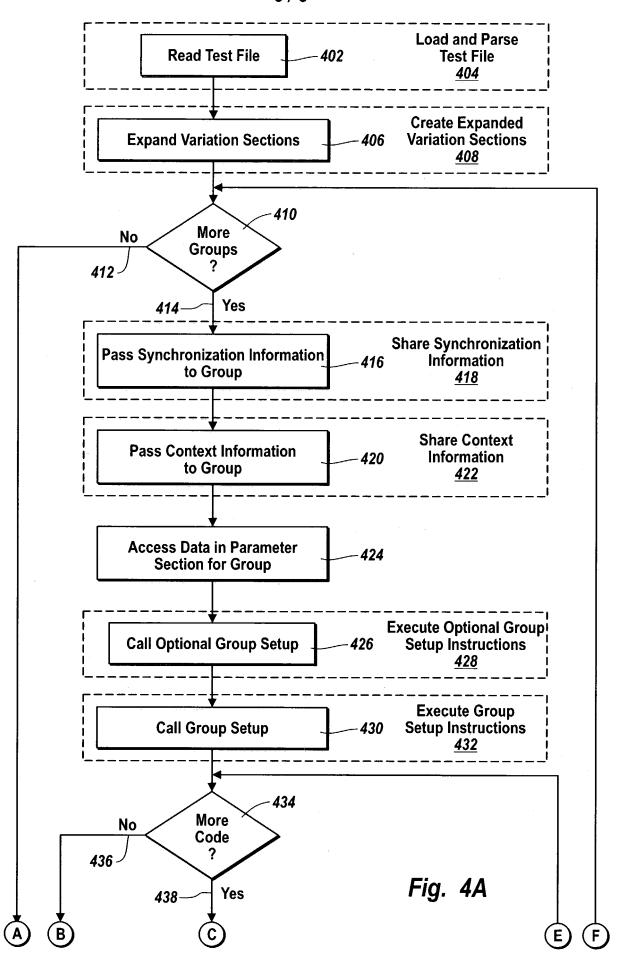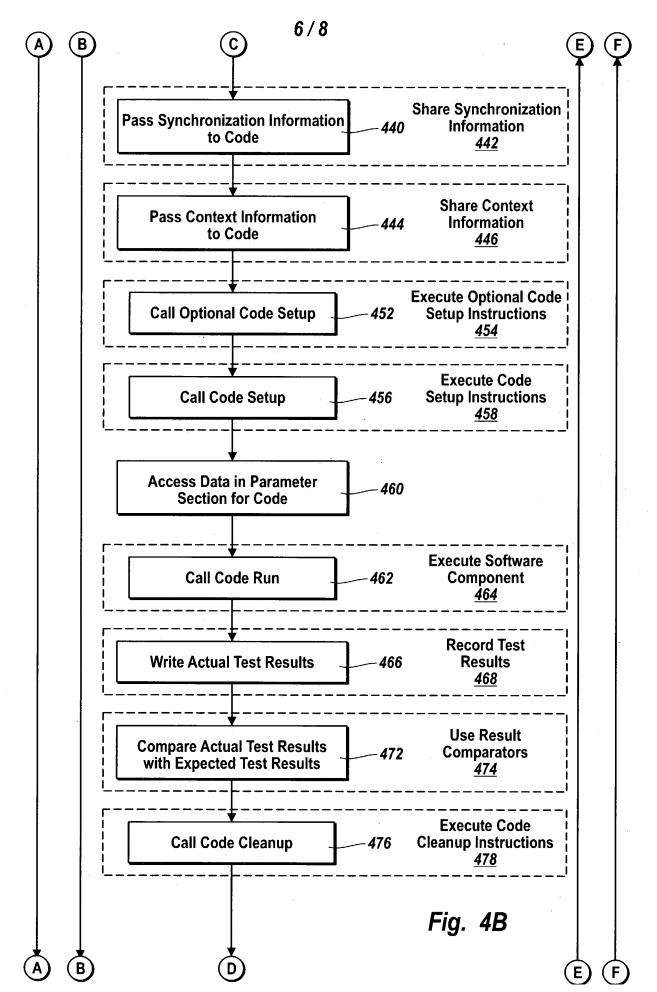
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Inventors: Francislav P. Penov et al.
Docket No.: 13768.410

6 / 8

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Pass Synchronization Information to Code — 440	Share Synchronization Information 442
Pass Context Information to Code — 444	Share Context Information 446
Call Optional Code Setup — 452	Execute Optional Code Setup Instructions 454
Call Code Setup — 456	Execute Code Setup Instructions 458

Access Data in Parameter Section for Code — 460

Call Code Run — 462	Execute Software Component 464
Write Actual Test Results — 466	Record Test Results 468
Compare Actual Test Results with Expected Test Results — 472	Use Result Comparators 474
Call Code Cleanup — 476	Execute Code Cleanup Instructions 478

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Fig. 4B

7 / 8

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Execute Optional Code Cleanup Instructions
_482_

Call Optional Code Cleanup —480

—484

Next Code

Execute Group Cleanup Instructions
_488_

Call Group Cleanup —486

Execute Optional Group Cleanup Instructions
_492_

Call Optional Group Cleanup —490

—494

Next Code

Record Testing Information
_498_

Write Testing Information to Log —496

Fig. 4C

Title: TEST EXECUTION FRAMEWORK FOR AUTOMATED SOFTWARE TESTING.
Inventors: Francislav P. Penov et al.
Docket No.: 13768.410

8 / 8

Fig. 5
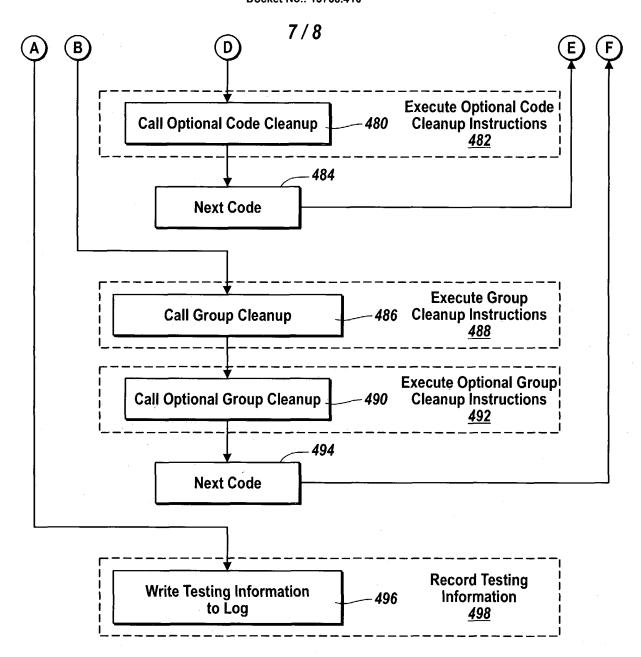
547

Monitor

Local Area Network

551

Remote Computer

550b

Application Programs

549b

Wide Area Network

552

Remote Computer

536b

550a

Application Programs

549a
540

536a

Keyboard

554

Modem

553

Network Interface

546

Serial Port Interface

542

534

Optical Drive Interface

531

530

533

Magnetic Disk Drive Interface

529

532

Hard Disk Drive Interface

528

527

539

523

Video Adapter 548

System Bus

521

Processing Unit

520

522

System Memory

(Rom) 524

Bios 526

(Ram) 525

Operating System 535

Application Programs 536

Other Program Modules 537

Program Data 538

Operating System 535

Application Programs 536

Other Program Modules 537

Program Data 538